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Idaho Parcel Data Exchange Standard

A product of the
Parcel Technical Working Group (TWG),
a subgroup of the Cadastral Technical Working Group (TWG)

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Version 0.1, April through October 2010. Standard in development.

Contents

1. Introduction to the Parcel Data Exchange Standard

A statewide Parcel Framework layer is a critical source of information for resource land management, community and economic development needs, infrastructure maintenance, research and analysis, homeland security, business development, public safety, and more. Most organizations have business needs that can benefit from a Parcel Framework layer, from the private sector to local, state, and federal government agencies.

A Parcel Framework layer is intended to facilitate integration and sharing of parcel data published by this variety of entities and to enhance the dissemination and use of the parcel information to the public domain.

This standard was developed by the Parcel Technical Working Group (TWG), a subgroup of the Idaho Cadastral TWG, for The Idaho Map (TIM).

1.1. **Mission and Goals of the Standard**

This Idaho Parcel Data Exchange Standard describes a statewide parcel layer stored as polygons in a geographic information system (GIS). The Idaho Parcel Framework layer will contain parcels from a variety of cooperating entities that maintain GIS parcel data, including local, county, state, federal, and tribal organizations.

It will communicate with and may have similar attributes to other Idaho Framework data standards. It will establish the minimum attributes and geospatial database schema for the Parcel Framework layer.

The Parcel Framework layer will be regularly updated, publically accessible, and beneficial to agencies and data customers. The fields in the Parcel Data Exchange Standard will be general enough to incorporate basic information from the agencies and will allow for expansion to a more complicated data structure and schema as participation increases.

The ultimate goal is that all Idaho agencies with geospatial parcel data will contribute their information to the Parcel Framework layer.

1.2. **Relationship to Existing Standards**

This Parcel Data Exchange Standard will be associated with other Idaho Framework standards that exist or are in development.

Other standards referenced while creating this standard include:

Idaho Geospatial Council Executive Committee, Public Safety Technical Working Group, February 16, 2010. *Structures Data Exchange Standard*, Version 0.4. Internet. http://gis.idaho.gov/framework/structures/FinalDraftStructureStandard_vdot4.pdf

Idaho Geospatial Council Executive Committee, Public Safety Technical Working Group, November 30, 2009. *Data Exchange Standard for Emergency Service Zones*, Revision 6. Internet. http://gis.idaho.gov/igo/Draft%20Data%20Exchange%20Standard%20for%20ESZ%20rev6.pdf

INSIDE Idaho, April 2010. Project overview and geospatial metadata for *Road Transportation Framework of Idaho*, University of Idaho, Moscow, Idaho. Internet. http://insideidaho.org/geodata/frameworkPilot/transportation/

Federal Geographic Data Committee (FGDC), Subcommittee on Cadastral Data, May 2008. *Cadastral Data Content Standard for the National Spatial Data Infrastructure*, Version 1.4. Internet. http://www.nationalcad.org/data/documents/CADSTAND.v.1.4.pdf

1.3. **Description of the Standard**

This standard describes the vision and geospatial data structure of a Parcel Framework layer in the state of Idaho. This standard is devised to be:

- Simple, easy to understand, and logical
- Uniformly applicable, whenever possible
- Flexible and capable of accommodating future expansions
- Dynamic in terms of continuous review

1.4. **Applicability and Intended Uses**

This standard applies to the Parcels element of the Cadastral theme of The Idaho Map (TIM).

When implemented, it will enable users to acquire geometry and information about Idaho parcels. It will increase interoperability between automated geographic information systems; enable sharing and efficient transfer of information between agencies and customers; and encourage partnerships between government institutions, the private sector, and the public in order to avoid duplication of effort and ensure effective management of information resources. It will help improve parcel data quality over time as errors will be identified and brought to the attention of the agencies.

This standard is not instruction on how agencies should design their own parcel databases. Rather, it is a standard for a statewide layer into which parcels can be incorporated.

This standard does not consider data sharing agreements, contracts, transactions, privacy concerns, or any other issues relating to the acquisition and dissemination of parcel data.

1.5. **Standard Development Process**

April – October, 2010

The Parcel Technical Working Group (TWG), a subgroup of the Cadastral TWG, is a voluntary group of private, city, county, tribal, state, and federal representatives. In March 2010, the Parcel TWG chairperson called for a few TWG volunteers to begin developing the standard for the statewide Idaho Parcel Framework. A team of five gathered, representing private, county, state, and federal organizations.

The team looked to fellow Idaho Framework teams to see what other standards or datasets exist or are currently in development. Two were found at the time: the draft standards for Emergency Service Zones and Structures (both of which are under the Public Safety Framework). These draft standards were used as a reference.

With input from the Parcel Technical Working Group, the Parcel Standard Team wrote this Parcel Data Exchange Standard in the format required by the Idaho Information Technology Resource Management Council (ITRMC) Framework Standards Development Policy (P5030).

1.6. **Maintenance of the Standard**

This standard will be revised as needed and in accordance with the ITRMC Framework Standards Development Policy (P5030) guidance.

2. **Body of the Standard**

2.1. **Scope and Content**

The scope of the Parcel Data Exchange Standard is to describe a statewide, publicly available geospatial layer which identifies the physical locations and attributes of parcels in Idaho.

2.2. **Need**

Parcels are a key dataset needed for resource land managers, community and business development needs, infrastructure maintenance, research, homeland security, public safety, and more. This standard provides the impetus to aggregate parcel data for centralized access and stewardship information.

2.3. **Participation in the Standard Development**

The development of the Parcel Data Exchange Standard adheres to the ITRMC Framework Standards Development Policy (P5030). The Parcel Standard Team tasked with developing this standard represents private, county, state, and federal organizations. As the standard is reviewed in accordance with Policy P5030 requirements, there will be

opportunity for broad participation and input by stakeholders in the development of this standard. The process will be equally broad for input on updates and enhancements to the standard. As with all Idaho Framework standards, public review and comments on the Parcel Data Exchange Standard is encouraged.

2.4. Integration with Other Standards

The Parcel Data Exchange Standard follows the same documentation format as other Idaho geospatial framework data standards. The parcel standard may contain some of the same attributes as other framework standards and may adopt the field name, definition, and domain from the other standards to promote consistency.

2.5. Technical and Operation Context

2.5.1. Data Environment

The data environment is a vector model, containing closed vector polygons with a specific standardized set of attributes pertinent to the Parcel Framework.

Parcel data must be submitted to the Parcel Framework layer in a format consisting of closed vector polygons.

2.5.2. Reference Systems

The Parcel Framework layer will be published in the Idaho Transverse Mercator (IDTM) NAD83 coordinate system, which is the State of Idaho's single zone coordinate system. Submitted data sources must have a defined coordinate system.

2.5.3. Global Positioning Systems (GPS)

Some data provided might contain geometry from GPS methods, and the provided metadata should describe this if applicable. However, geometry from a GPS is not required to meet this standard.

2.5.4. Interdependence of Themes

Parcel geometry may be coincident with other framework data, such as cadastral reference, hydrography, roads, structures, etc. At this time there is no enforcement of coincidence or topology relationships between the Parcel Framework and other Idaho Framework layers.

2.5.5. Encoding

When data is imported into and exported from the Parcel Framework layer, encoding will take place to convert data formats and attributes, likely by the use of modeling or scripting.

2.5.6. **Resolution**

The Parcel Framework layer will accept data from agencies regardless of resolution. Metadata regarding resolution will accompany the source data.

2.5.7. **Accuracy**

The Parcel Framework layer will accept data from agencies regardless of accuracy. Metadata regarding accuracy will accompany the source data.

2.5.8. **Edge Matching**

Edge-matching will not be enforced within the Parcel Framework layer.

2.5.9. **Unique Identifier**

There is no requirement for a permanent unique identifier specific to each parcel polygon.

2.5.10. **Attributes**

Attributes describe each parcel feature. Attributes for public and intergovernmental distribution are described in Section 3 of this standard.

2.5.11. **Stewardship**

Perpetual maintenance and other aspects of lifecycle management are essential to the Parcel Framework layer. Details of stewards, their roles and responsibilities, and processes are set forth in a Stewardship Plan and related documents.

2.5.12. **Records Management and Archiving**

Records management and archiving for the Parcel Framework layer will be described in the forthcoming stewardship plan and related documents.

2.5.13. **Metadata**

The Parcel Framework layer metadata will describe the methods used to aggregate the individual parcel data sources, processes or crosswalks performed, attributes, and other information. This metadata will conform to metadata standards of the State of Idaho and the Federal Geographic Data Committee (FGDC). Metadata must accompany source contributions.

3. Data Characteristics

3.1. Minimum Graphic Data Elements

The geometry of the features in the Parcel Framework database must be closed vector polygons.

3.2. **Optional Graphic Data Elements**

Not applicable.

3.3. **Minimum Required Attributes for Public Distribution**

The following attributes are required for all polygons in the Parcel Framework layer.

Field Name	Data Type	Length	Description	Examples
PARCEL_ID	Text	TBD	The unique county or agency identifier for that parcel as used by the source agency.	County Parcel ID or PIN
AGENCY	Text	TBD	The entity that created the polygon and can answer specific questions about the history and geometry of the polygon.	Ada County City of Pocatello
UPDATED	Date	N/A	The date that the data was received by the Parcel Framework.	N/A
MODIFIED	Date	N/A	The date that the polygon was last edited by the agency.	N/A
WEBSITE	Text	255	The URL for a public internet site for further information.	Ada County http://www.adacountyassessor.org/propsys/ParcelSearch.jsp Canyon County http://id-canyon-assessor.governmaxa.com/propertymax/rover30.asp Idaho Department of Lands http://gis1.idl.idaho.gov/DLR/
COUNTY	Text	20	The Idaho county within which the PARCEL_ID is relevant.	Canyon Teton
FIPS	Text	20	FIPS code for state and county.	160001

3.4. **Additional Required Attributes for Inter-Governmental Distribution**

The following attributes are required for polygons in the Parcel Framework provided to governmental entities.

Field Name	Data Type	Length	Description	Examples
OWNER_1	Text	100	Owner of Parcel	Jenny Dillon
OWNER_2	Text	100	Additional owner of parcel	Pete Dillon, Jr
MAILING_ADDRESS_1	Text	100	Mailing address of owner	1234 S Paper Rd
MAILING_ADDRESS_2	Text	100	Additional mailing address of owner	Apt 5C
MAILING_CITY	Text	100	Mailing city of owner	Whoknowsburg
MAILING_STATE	Text	2	Mailing state of owner	AK
MAILING_ZIPCODE	Text	10	Mailing U.S. zip code of owner	12345-6789
MAILING_COUNTRY	Text	100	Mailing country of owner	USA
SITE_ADDRESS_1	Text	100	Site address of property	6789 W Stapler Ave
SITE_CITY	Text	100	City of property	Whateverville
SITE_ZIPCODE	Text	10	Zip code of property	12345-9876
CATEGORY_1	Text	2	Assessed land use	01
CATEGORY_2	Text	2	Assessed land use	02
CATEGORY_3	Text	2	Assessed land use	03
CATEGORY_4	Text	2	Assessed land use	04
CATEGORY_5	Text	2	Assessed land use	05
CATEGORY_6	Text	2	Assessed land use	06
CATEGORY_7	Text	2	Assessed land use	07
IRRIGATED_ACREAGE	Double	TBD	Irrigated acreage by land use category	20.5
DRYLAND_ACREAGE	Double	TBD	Dryland agricultural acreage by land use category	37.2
ZONING	Text	TBD	Zoning category	Res
LEGAL_DESC_1	Text	TBD	Legal description	
LEGAL_DESC_2	Text	TBD	Legal description	
LEGAL_DESC_3	Text	TBD	Legal description	
LEGAL_DESC_4	Text	TBD	Legal description	
LEGAL_DESC_5	Text	TBD	Legal description	
SUBDIVISION _NAME	Text	TBD	Subdivision name	Happy Valley
VALUATION	Integer	TBD	Assessed value of property	100,000

3.5. **Data Quality**

Data quality will improve as stewards and users provide and receive feedback on data quality issues. Refer to section 2.5 of this standard regarding specific data quality.

Appendix A: References

Idaho Geospatial Office, November 2009. *White Paper on Parcel Mapping Concept*. Internet. http://gis.idaho.gov/framework/White%20Paper%20re%20Parcel%20Mapping%20Fund%20110609.pdf

Idaho Geospatial Office, Public Safety Technical Working Group, February 16, 2010. *Structures Data Exchange Standard*, Version 0.4. Internet. http://gis.idaho.gov/framework/structures/FinalDraftStructureStandard_vdot4.pdf

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Federal Geographic Data Committee (FGDC), Subcommittee on Cadastral Data, September 2007. *State Stewardship for Parcel Data.* Internet. http://www.ncgicc.com/Portals/3/documents/StateStewardship_CadastralData_%20Sept2007.pdf

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Information Technology Resource Management Council (ITRMC). *Enterprise Standards S4000 Geographic Information Systems (GIS) Data, Category: S4220 Geospatial Metadata.* http://www2.state.id.us/itrmc/plan&policies/Standards/S4220_GeospatialMetadata.pdf

Appendix B: Glossary

Agency: the entity that created the geospatial features and can answer specific questions about the history and the geometry of the data. (Idaho Parcel Standard Team)

Data Customer: anyone who uses the Parcel Framework layer. This includes public citizens, private businesses, educational institutions, non-profit organizations, and government agencies at all levels. (Idaho Parcel Standard Team)

Encoding: the recording or reformatting of data into a computer format. Data may be encoded to reduce storage, increase security, or to transfer it between systems using different file formats. In GIS, analog graphic data, such as paper maps and images are encoded into computer formats by scanning or digitizing. (ESRI)

Framework: statewide base map datasets identified and described in the Strategic and Business Plans for Development and Deployment of Idaho's Spatial Data Infrastructure (http://gis.idaho.gov/IGO/stratplan.htm) and depicted in the Framework Diagram (http://gis.idaho.gov/Framework.htm). (ITRMC P5030)

Parcel: a single cadastral unit which is the spatial extent of the current rights and interests in real property. (Idaho Parcel Standard Team)

Parcel Framework layer: a statewide parcel layer stored as polygons. The Idaho Parcel Framework layer will contain parcels from a variety of agencies--from local, county, state, federal, and tribal organizations. (Idaho Parcel Standard Team)